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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/729,621

12/05/2003

John J. Thrall

600189-057

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76041

7590

03/03/2009

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EXAMINER

LEWIS, ALICIA M

ART UNIT

PAPER NUMBER

2164

MAIL DATE

DELIVERY MODE

03/03/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/729,621	<b>Applicant(s)</b> THRALL, JOHN J.	
	<b>Examiner</b> Alicia M. Lewis	<b>Art Unit</b> 2164	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 November 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,4-16 and 18-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-16 and 18-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

This office action is responsive to communication filed November 20, 2008.

Claims 1, 19 and 25 are currently amended. Therefore, claims 1, 2, 4-16 and 18-25 remain pending in this application.

### ***Claim Objections***

1. Claims 1, 2, 4-16 and 18 are objected to because of the following informalities:  
The methods of claims 1, 2, 4-16 and 18 are not tied to a particular machine. There are no explicit recitations of a particular machine, and there are no limitations recited in the claims that inherently involve the use of a particular machine. Appropriate correction is required.
2. Claims 19-24 are objected to because of the following informalities: The apparatus described by claims 19-24 appears to be directed to an arrangement of software. According to the specification, the modules are software modules and thus the apparatus represents an arrangement of software. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 1, 2, 4-16, and 18-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al. (US Patent Application Publication 2005/0071255 A1) ('Wang') in view of Bem (US Patent Application Publication 2005/0080772 A1), and further in view of Mortensen et al. (US Patent 2005/0065928 A1) ('Mortensen').

With respect to claims 1, 19 and 25, Wang teaches:

tracking clicks by users on data returned in a search result in response to a query (element 126 in Figure 1, paragraph 27 lines 3-5, paragraph 28 lines 1-4); and

determining a user preference for a clicked data in accordance with a physical position of the clicked data in the search result (paragraphs 26, 30, 34).

Wang does not explicitly teach wherein determining the user preference for the clicked data is performed by determining a ratio calculating the quotient of actual clicks to the clicked data and a specific query and clicks expected for the clicked data and the specific query.

Bem teaches using match confidence to adjust a performance threshold (see abstract) in which he teaches determining the user preference for the clicked data is performed by determining a ratio calculating the quotient of actual clicks to the clicked data and a specific query and clicks expected for the clicked data and the specific query (paragraphs 75 lines 1-3 and 18-19, paragraphs 79-81, and paragraph 94).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Wang by the teaching of Bem because

determining the user preference for the clicked data is performed by determining a ratio calculating the quotient of actual clicks to the clicked data and a specific query and clicks expected for the clicked data and the specific query would enable an ad (search result) score to be adjusted using a score adjustment parameter, which takes into account a ratio of click-through data (paragraphs 59 and 79).

Further regarding claims 1, 19 and 25, Wang in view of Bem does not teach wherein determining clicks expected is performed by determining a context dependent user preference score in accordance with a weight table that comprises a weight for the clicked data in accordance with physical position and is keyed to one of a plurality of types of user interfaces; or using the determined user preference to determine rankings for display of future search results.

Mortensen teaches content performance assessment optimization for search listings in wide area network searches (see abstract), in which he teaches:

wherein determining clicks expected is performed by determining a context dependent user preference score in accordance with a weight table that comprises a weight for the clicked data in accordance with physical position and is keyed to one of a plurality of types of user interfaces (paragraphs 99-100); and

using the determined user preference to determine rankings for display of future search results (abstract, paragraphs 23 and 130-131).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have further modified Wang by the teaching of Mortensen

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because determining a context dependent user preference score in accordance with a weight table keyed to one of a plurality of types of user interfaces; and using the determined user preference to determine rankings for display of future search results would enable enhanced, more efficient searching by improving the relevancy of search results given by a search engine to reflect user preferences (Mortensen, abstract).

With respect to claims 2 and 20, Wang as modified teaches wherein determining a user preference for a clicked data is further performed in accordance with a number of clicks made by users on the data returned in the search result (Wang, paragraph 31 lines 6-9, paragraph 37 lines 1-3).

With respect to claim 4, Wang as modified teaches wherein determining a user preference is performed periodically (Wang, paragraph 31).

With respect to claim 5, Wang as modified teaches wherein determining a user preference is performed weekly (Mortensen, paragraphs 46 and 95).

With respect to claim 6, Wang as modified teaches wherein determining a user preference is performed in real time (Mortensen, paragraphs 45 and 131).

With respect to claim 7, Wang as modified teaches further comprising determining values in a weight table based on user preferences for physical positions

within search results independent of a query (Wang, paragraphs 33-34, page 8 claim 4; Mortensen, paragraph 87).

With respect to claims 8 and 21, Wang as modified teaches wherein determining a user preference for a clicked data in accordance with a physical position of the data in the search result is performed in accordance with weight values determined by observed user click behavior (Wang, paragraph 28).

With respect to claim 9, Wang as modified teaches wherein determining a user preference for a clicked data in accordance with a physical position of the data in the search result is performed in accordance with weight values determined by trial and error (Bem, paragraphs 71, 74 and 96).

With respect to claim 10, Wang as modified teaches wherein tracking clicks by users includes tracking: a query, a data fingerprint, and a position in the search results for a click on data from a search result for a specific query (Wang, paragraph 29).

With respect to claim 11, Wang as modified teaches wherein tracking clicks by users further includes tracking: a time the click occurred and user ID information (Wang, paragraph 29) (*Because there are multiple users of the system, it is implied that user ID information is tracked (Wang, paragraph 28 lines 1-3)*).

With respect to claims 12 and 22, Wang as modified teaches wherein determining a user preference further includes weighting click information so that clicks by users on data in unpopular positions in the search results migrate that data toward the top of future search results (Mortensen, paragraph 103).

With respect to claim 13, Wang as modified teaches further including normalizing the click information before the determining step (Wang, paragraph 33 lines 1-2).

With respect to claim 14 and 23, Wang as modified teaches wherein the data is image data (Wang, paragraph 27 lines 9-10).

With respect to claim 15, Wang as modified teaches wherein the data is shopping data (Wang, paragraph 27 lines 7-8).

With respect to claim 16, Wang as modified teaches wherein the data is textual data (Wang, paragraph 27 lines 9-10).

With respect to claim 18, Wang as modified teaches wherein determining a user preference includes determining context dependent user preference scores in accordance with a characteristic of the users clicking on the search results (Wang, paragraph 35).



With respect to claim 24, Wang as modified teaches wherein determining a user preference uses a plurality of weight tables corresponding to ones of a plurality of user interfaces displaying the search result (Mortensen, paragraphs 85-87).

5. Claim 1, 2, 4-16, 18-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al. (US 2005/0071255 A1) ('Wang') in view of Bem (US 2005/0080772 A1) and Shu et al. (US Patent 2005/0114306 A1) ('Shu'), and further in view of Mortensen et al. (US Patent 2005/0065928 A1) ('Mortensen').

With respect to claims 1, 19 and 25, Wang teaches:

tracking clicks by users on data returned in a search result in response to a query (element 126 in Figure 1, paragraph 27 lines 3-5, paragraph 28 lines 1-4); and

determining a user preference for a clicked data in accordance with a physical position of the clicked data in the search result (paragraphs 26, 30, 34).

Wang does not explicitly teach wherein determining the user preference for the clicked data is performed by determining a ratio calculating the quotient of actual clicks to the clicked data and a specific query and clicks expected for the clicked data and the specific query.

Bem teaches using match confidence to adjust a performance threshold (see abstract) in which he teaches determining the user preference for the clicked data is performed by determining a ratio calculating the quotient of actual clicks to the clicked

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data and a specific query and clicks expected for the clicked data and the specific query (paragraphs 75 lines 1-3 and 18-19, paragraphs 79-81, and paragraph 94).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Wang by the teaching of Bem because determining the user preference for the clicked data is performed by determining a ratio calculating the quotient of actual clicks to the clicked data and a specific query and clicks expected for the clicked data and the specific query would enable an ad (search result) score to be adjusted using a score adjustment parameter, which takes into account a ratio of click-through data (paragraphs 59 and 79).

Further regarding claims 1, 19 and 25, Wang in view of Bem does not teach determining a context dependent user preference score in accordance with a weight table keyed to one of a plurality of types of user interfaces; or using the determined user preference to determine rankings for display of future search results.

Shu teaches integrated searching of multiple search sources (see abstract), in which he teaches:

determining a context dependent user preference score in accordance with a weight table keyed to one of a plurality of types of user interfaces (Figure 3, paragraphs 38-39, 59 and 110-116) ; and

using the determined user preference to determine rankings for display of future search results (paragraphs 40, 70-72, 110, 118 and 126).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have further modified Wang by the teaching of Shu because determining a context dependent user preference score in accordance with a weight table keyed to one of a plurality of types of user interfaces; and using the determined user preference to determine rankings for display of future search results would enable efficient searching by using client-specified weights to provide a unified list of results that are prioritized by rank (Shu, abstract).

Further regarding claims 1, 19 and 25, Wang in view of Bem and Shu does not teach a weight table that comprises a weight for the clicked data in accordance with physical position.

Mortensen teaches content performance assessment optimization for search listings in wide area network searches (see abstract), in which he teaches:

a weight table that comprises a weight for the clicked data in accordance with physical position (paragraphs 99-100).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have further modified Wang by the teaching of Mortensen because a weight table keyed to one of a plurality of types of user interfaces would enable enhanced, more efficient searching by improving the relevancy of search results given by a search engine to reflect user preferences (Mortensen, abstract).

With respect to claims 2 and 20, Wang as modified teaches wherein determining a user preference for a clicked data is further performed in accordance with a number of clicks made by users on the data returned in the search result (Wang, paragraph 31 lines 6-9, paragraph 37 lines 1-3).

With respect to claim 4, Wang as modified teaches wherein determining a user preference is performed periodically (Wang, paragraph 31).

With respect to claim 5, Wang as modified teaches wherein determining a user preference is performed weekly (Mortensen, paragraphs 46 and 95).

With respect to claim 6, Wang as modified teaches wherein determining a user preference is performed in real time (Mortensen, paragraphs 45 and 131).

With respect to claim 7, Wang as modified teaches further comprising determining values in a weight table based on user preferences for physical positions within search results independent of a query (Wang, paragraphs 33-34, page 8 claim 4; Shu, Figure 3, paragraphs 38-40; Mortensen, paragraph 87).

With respect to claims 8 and 21, Wang as modified teaches wherein determining a user preference for a clicked data in accordance with a physical position of the data in

the search result is performed in accordance with weight values determined by observed user click behavior (Wang, paragraph 28).

With respect to claim 9, Wang as modified teaches wherein determining a user preference for a clicked data in accordance with a physical position of the data in the search result is performed in accordance with weight values determined by trial and error (Bem, paragraphs 71, 74 and 96).

With respect to claim 10, Wang as modified teaches wherein tracking clicks by users includes tracking: a query, a data fingerprint, and a position in the search results for a click on data from a search result for a specific query (Wang, paragraph 29).

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With respect to claims 12 and 22, Wang as modified teaches wherein determining a user preference further includes weighting click information so that clicks by users on data in unpopular positions in the search results migrate that data toward the top of future search results (Mortensen, paragraph 103).

With respect to claim 13, Wang as modified teaches further including normalizing the click information before the determining step (Wang, paragraph 33 lines 1-2).

With respect to claim 14 and 23, Wang as modified teaches wherein the data is image data (Wang, paragraph 27 lines 9-10).

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With respect to claim 16, Wang as modified teaches wherein the data is textual data (Wang, paragraph 27 lines 9-10).

With respect to claim 18, Wang as modified teaches wherein determining a user preference includes determining context dependent user preference scores in accordance with a characteristic of the users clicking on the search results (Wang, paragraph 35).

With respect to claim 24, Wang as modified teaches wherein determining a user preference uses a plurality of weight tables corresponding to ones of a plurality of user interfaces displaying the search result (Shu, Figure 3, paragraphs 38-40) (*Shu teaches*

*that user specified rank weights may be used to supplement default rank weights; thus, in such a situation, a plurality of weight tables are used).*

### ***Response to Arguments***

6. Applicant's arguments with respect to claims 1, 2, 4-16 and 18-25 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia M. Lewis whose telephone number is 571-272-

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5599. The examiner can normally be reached on Monday - Friday, 9 - 6:30, alternate Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Rones can be reached on 571-272-4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. M. L./  
Examiner, Art Unit 2164  
February 26, 2009

/Charles Rones/  
Supervisory Patent Examiner, Art Unit 2164